

OLI simulation software and technology is the standard for modeling electrolyte systems. OLI has established a reputation for excellence in electrolyte thermodynamics within the chemical process industry (CPI) and academic fields. OLI established this core competency in the early 1970s, and has since added steady state simulation, oxidation-reduction, mass transfer limitations, surface reactions, aqueous corrosion, plus other important chemical mechanisms that govern multi-phase systems. As such, OLI products are used by hundreds of engineers, chemists, technologists, and researchers, in many industries.



OLI specializes in the rigorous prediction of multi-phase, multi-component chemical processes. Its temperature and pressure ranges are extreme (e.g., -60°C and 4,000 bar), and the breadth of chemistry covered include 80+ elements, aqueous and non-aqueous organics, and their behavior in water, -vapor, organic, solid, and interfacial environments. The combination of fundamental thermodynamics, property models, numerical algorithms, and databanks enable this unique capability: Clients know this as the OLI Engine.

OLI has built a family of software products, with applications covering chemical processes, aqueous corrosion simulation, oilfield scale prediction, water treatment, and environmental simulation. OLI client companies include chemical manufacturing, engineering services, public and private research, water treatment, energy and mining, in nearly 40 countries worldwide. OLI technology may also be accessed through major process flowsheet simulators, including Aspen Plus, gPROMS, HYSYS, IDEAS, PRO/II, and UniSim Design.

Problem solving

OLI software makes it possible for clients to:

- Predict accurately the behavior of chemicals in water, miscible solvents and organics
- Simulate steady-state and mass-transfer limited electrolyte processes
- Predict general and localized corrosion
- Predict and assist in the practical solutions that prevent plugging and corrosion in oil and gas wells
- Address wastewater contamination and purification
- Optimize chemical plant operation whenever electrolytes are involved
- Minimize the time, cost, and risk of lab, pilot or plant / field tests.

How to work with OLI

OLI Sales, Customer Success and Support team offers OLI software sales, training either regionally, via web or onsite, and OLI Simulation Studies. This team is staffed by scientists, engineers, chemists, and software developers to deliver expert services to clients. In addition, we have partners:

- **SimTech**, who provides OLI software sales, training, and electrolyte applications consulting to clients within Japan, India, China and South Asian regions.
- **Alliance Partner** companies, who offer OLI as a property method inside their commercial flowsheet simulators.



- The right chemistry
- Advanced technology
- A variety of user interfaces
- Expert assistance to clients

Approach

OLI is proud to be a different kind of simulation company; dedicated to technology development and working to deliver expert OLI support, training, and service.

OLI believes that *no matter the process problem, the solution starts by getting the chemistry right*. This relentless pursuit of accurate chemical simulation allows OLI to address problems that no one else attempts, let alone succeeds in solving. A case in point is OLI's Mixed Solvent Electrolyte (MSE) model and databank. This technology is enabling chemical process simulations to be performed that are not possible to accomplish otherwise.

Products

OLI provides simulation capabilities in these areas:

CHEMISTRY

OLI Studio: Stream Analyzer

A virtual chemistry lab on your desktop; general purpose electrolyte equilibrium for single point, survey, as well as mix and separate calculations.

CORROSION

OLI Studio: Corrosion Analyzer

Corrosion rate prediction, localized corrosion indicator, and real-solution stability diagrams for understanding chemistry effects on aqueous corrosion; extreme value statistics for corrosion propagation

UPSTREAM

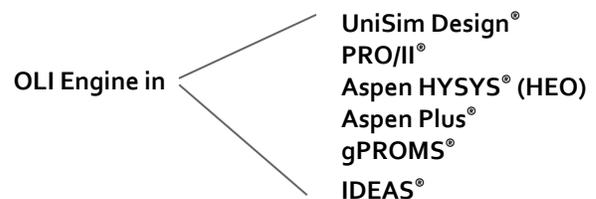
OLI Studio: ScaleChem

OLI Engine: PIPESIM PVT File

OLI with OLGA

UI and calculations for upstream, production chemistry applications.

ALLIANCE PROCESS FLOWSHEETS



OLI as a property method in our Alliance Partner software

ELECTROLYTE PROCESS FLOWSHEETS

OLI Flowsheet: ESP

Electrolyte process flowsheet simulation for conventional, multi-stage, environmental and control unit operations

OLI IN YOUR SIMULATION CODE

OLI Engine: Developer Edition

OLI Engine: Runtime

